

FIGURE 1

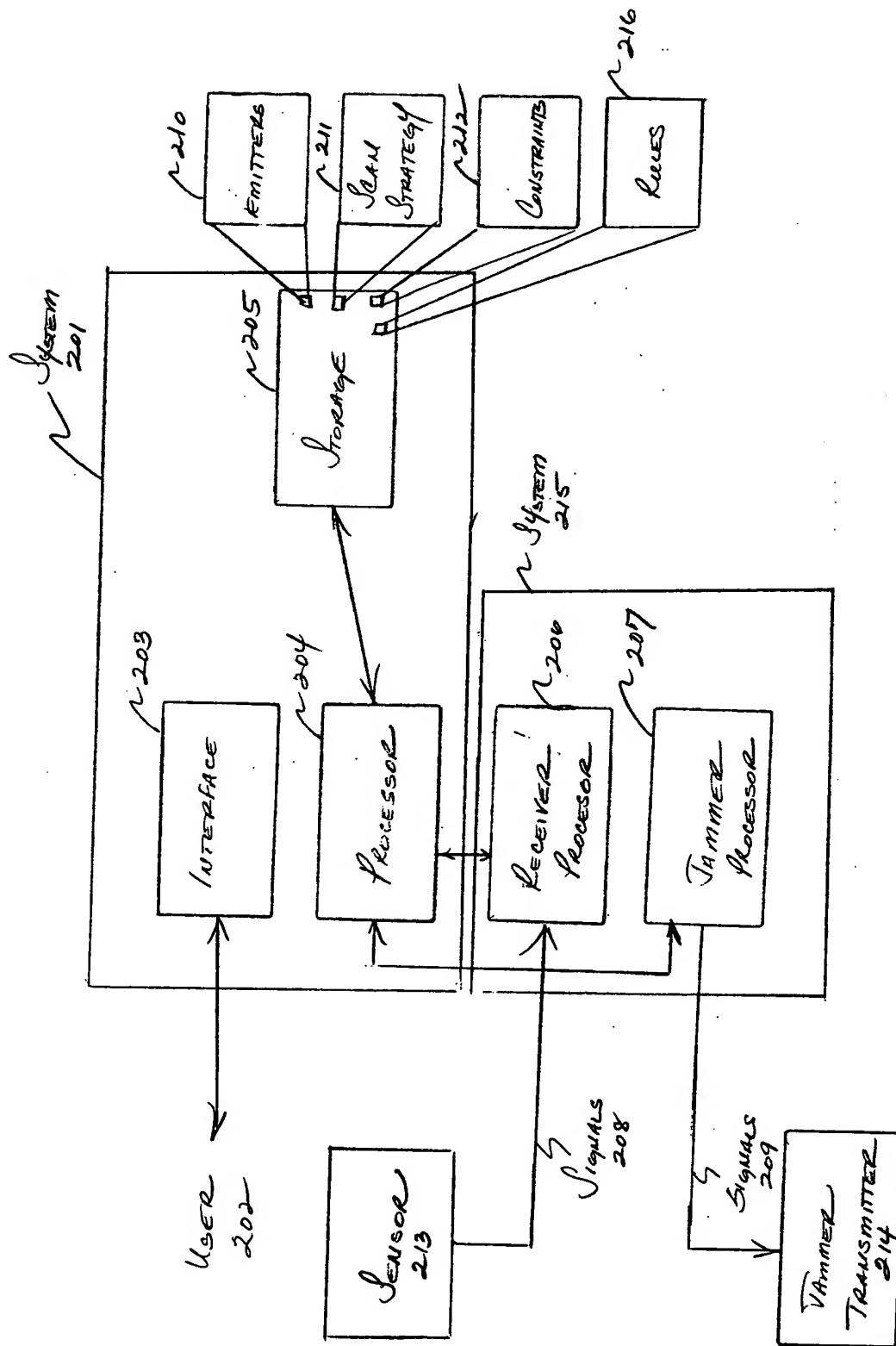
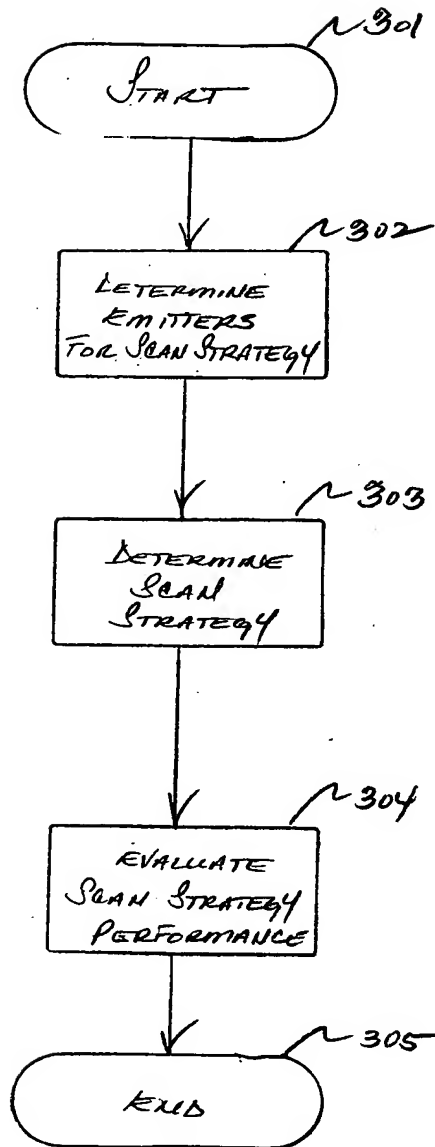


Figure 2



PROCESS
300

FIGURE 3

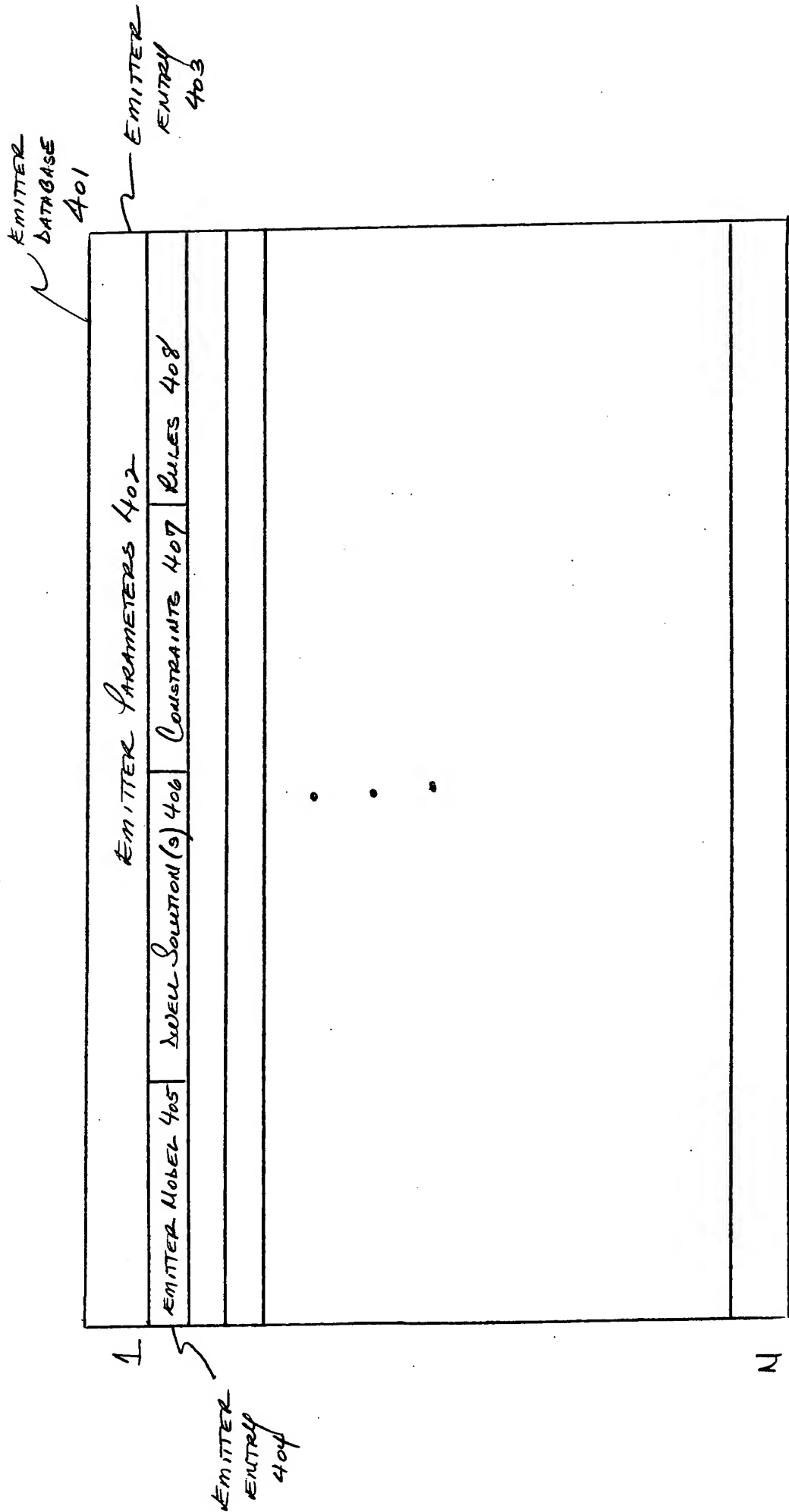


Figure 4

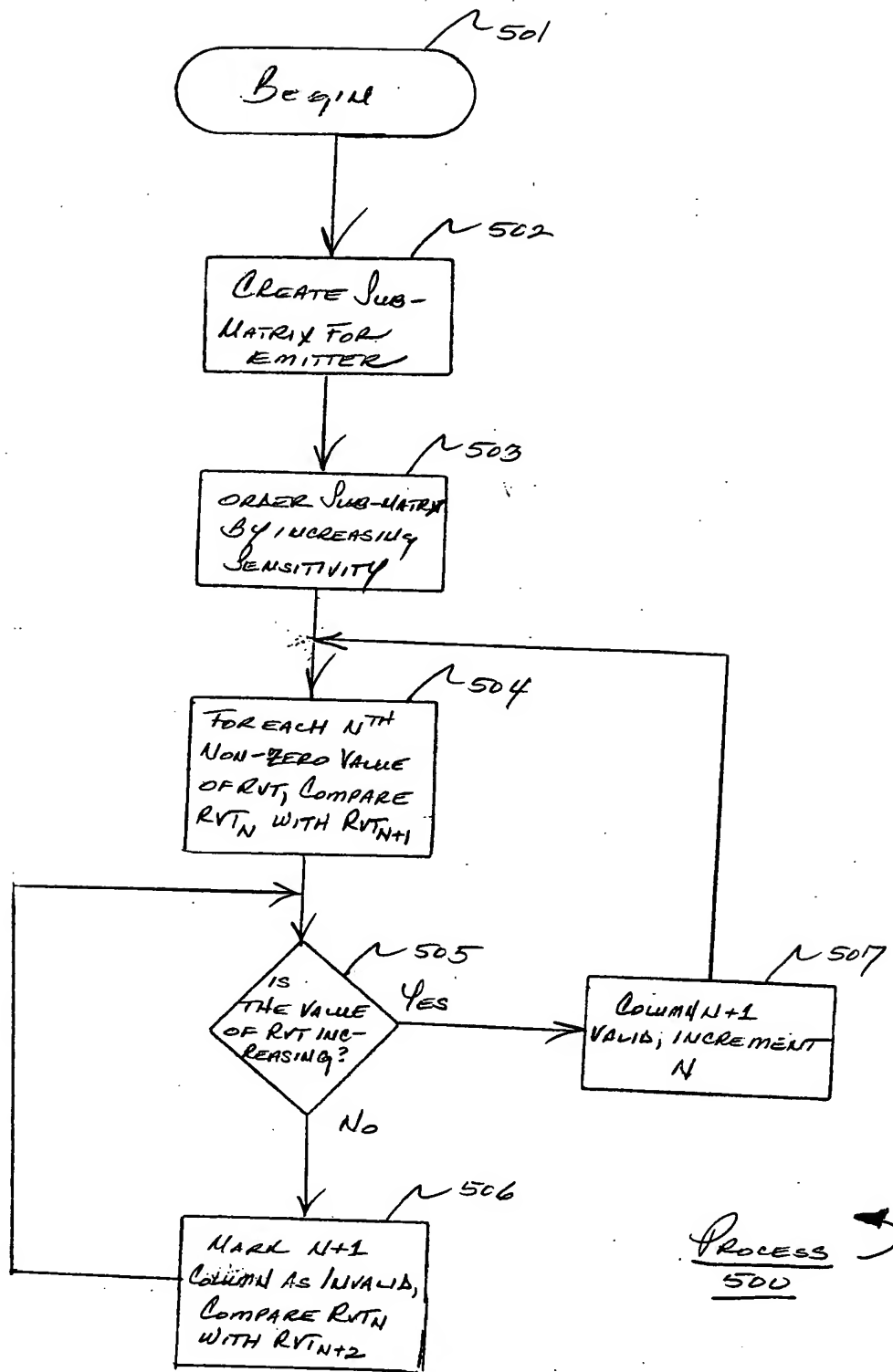


FIGURE 5

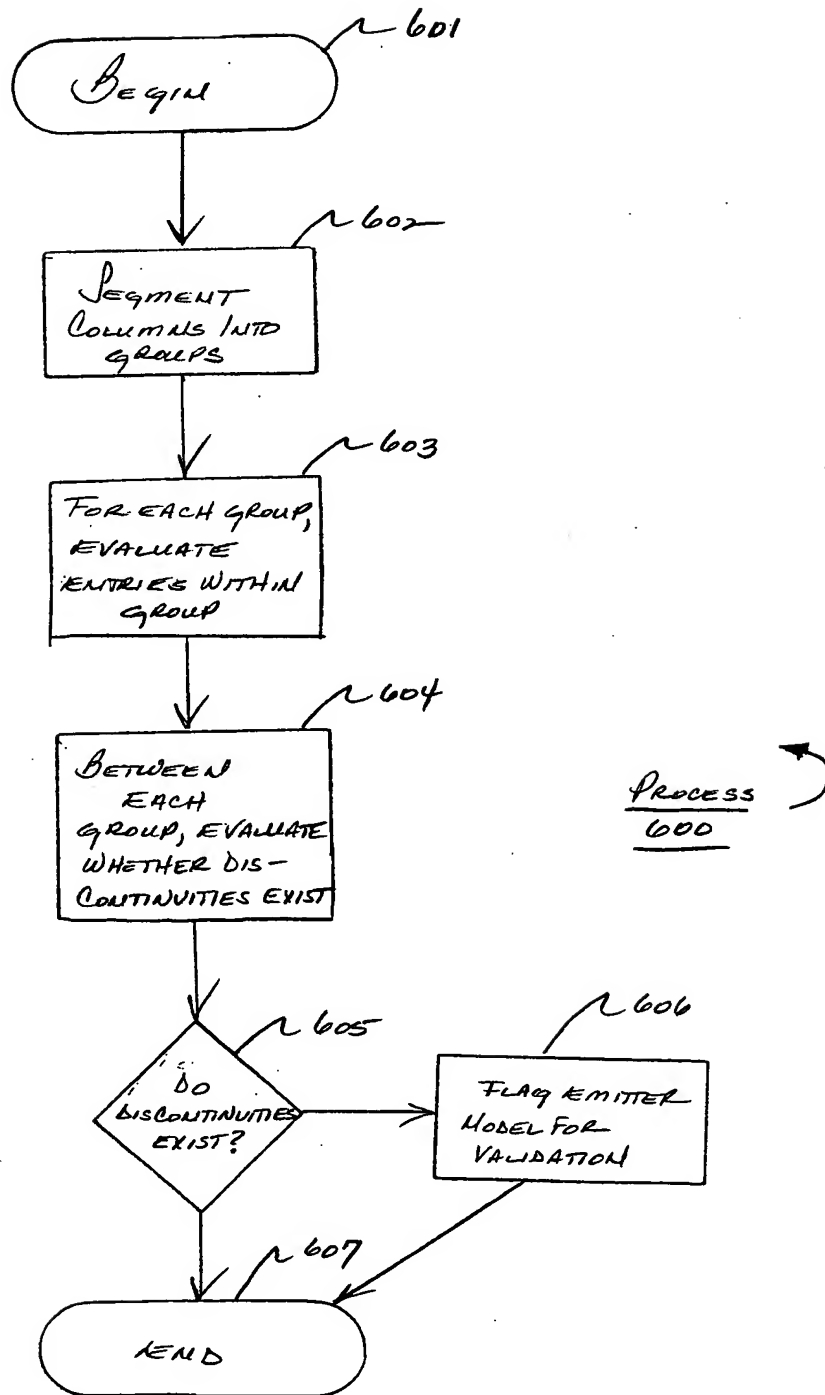


FIGURE 6

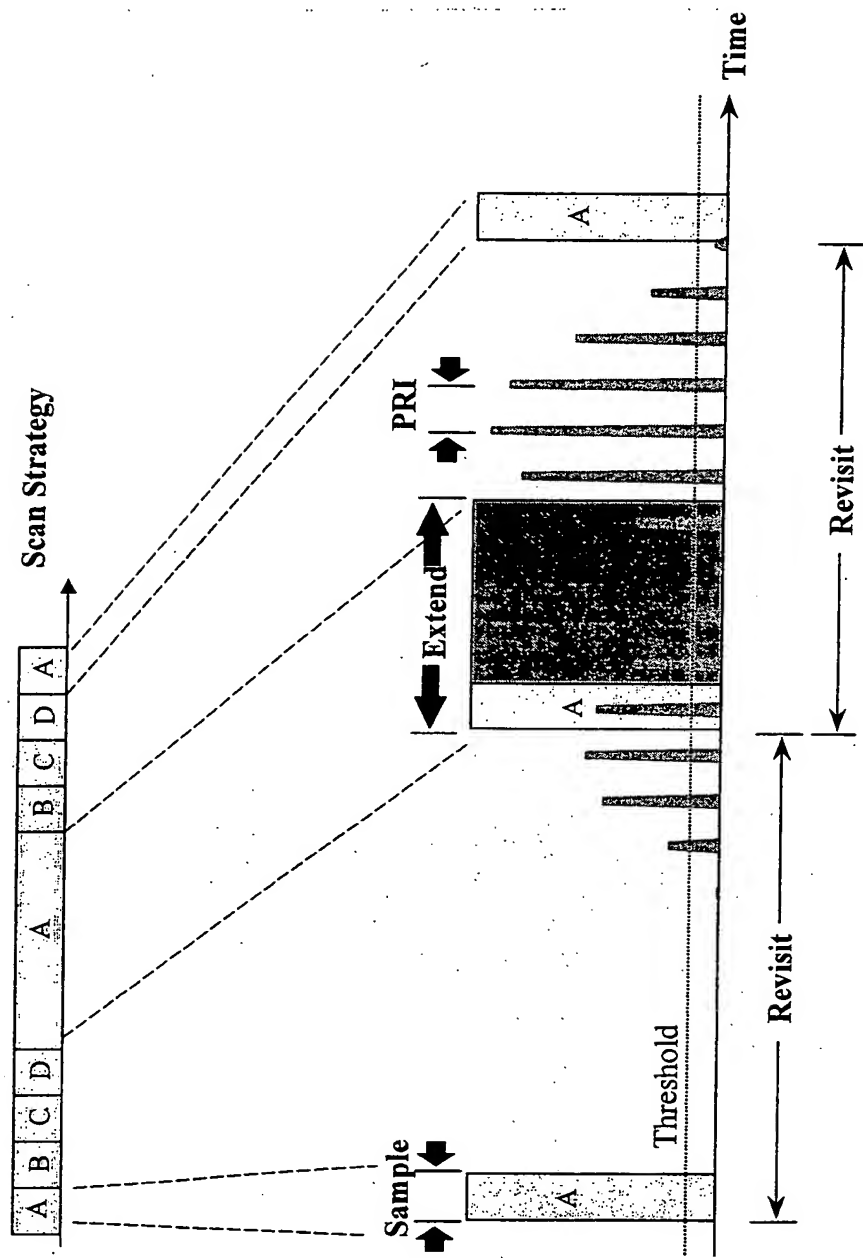


Figure 7

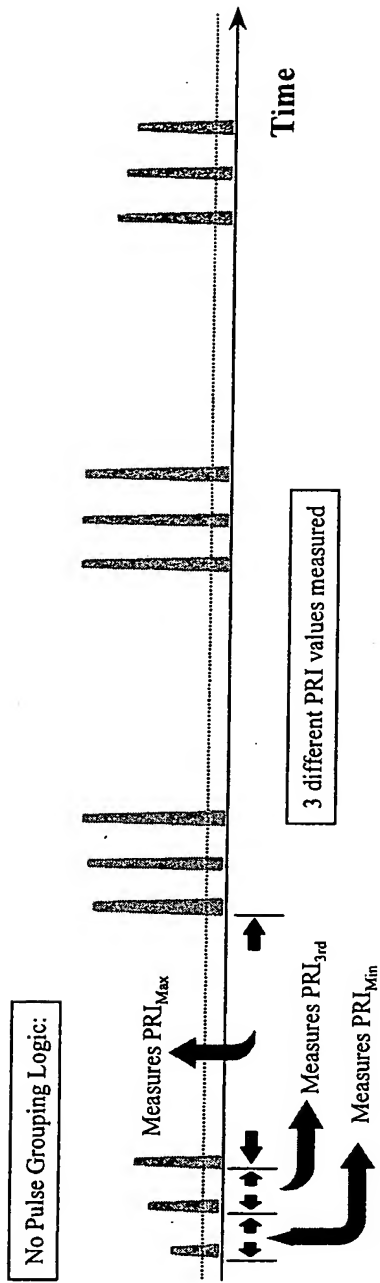


Figure 8A

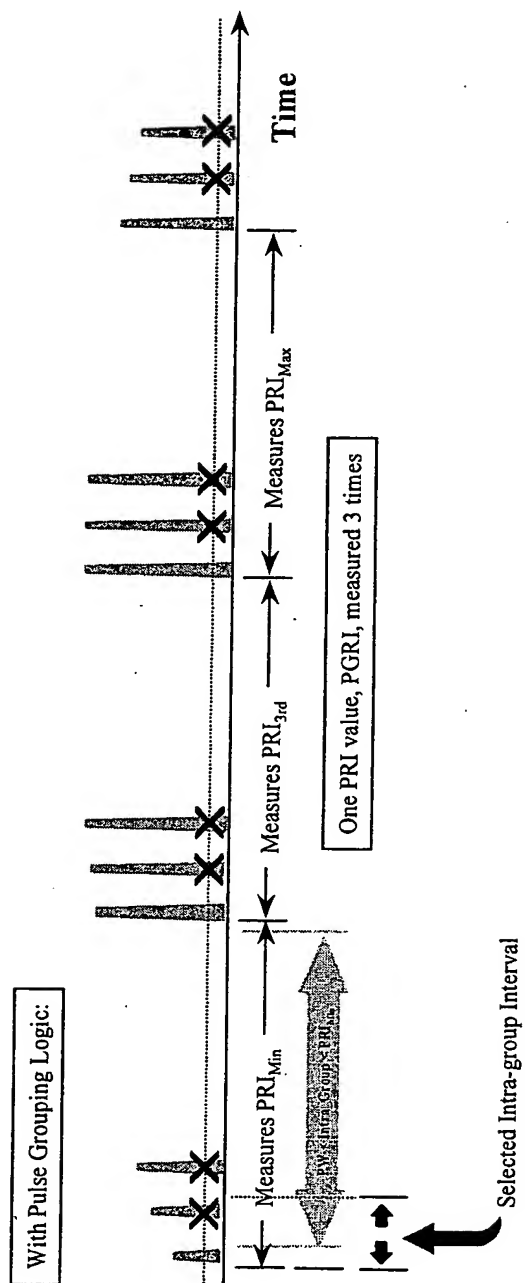


Figure 8B

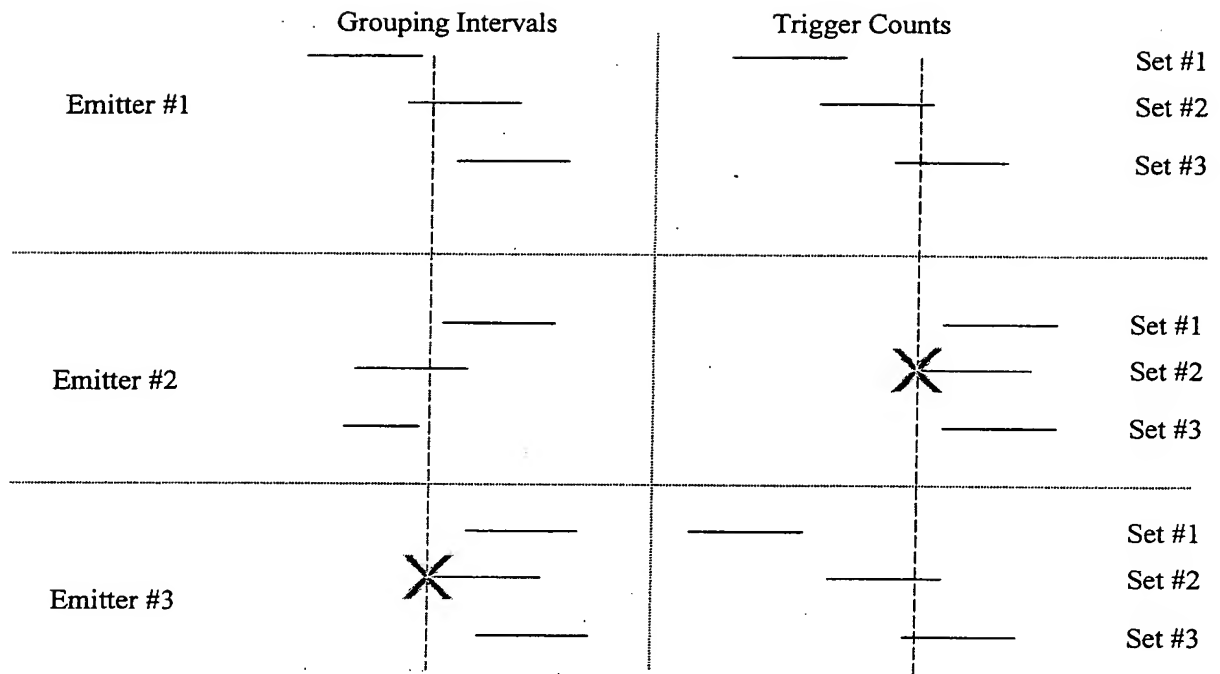


Figure 9

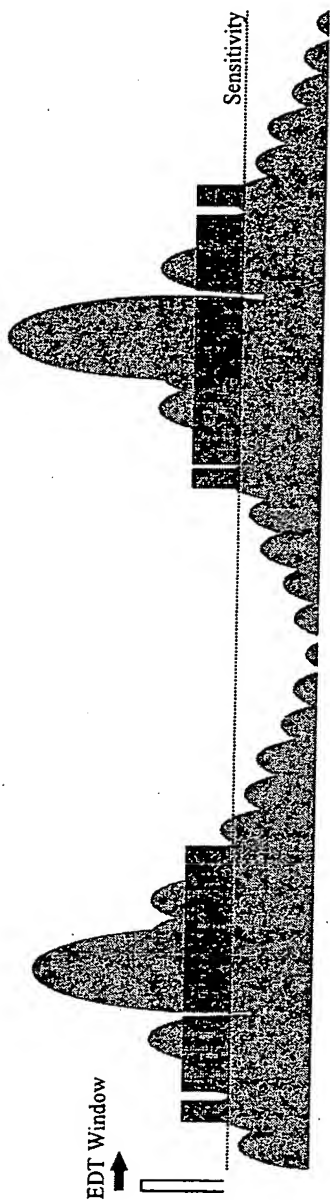


Figure 10A

Discrete Illuminations (TIBS)

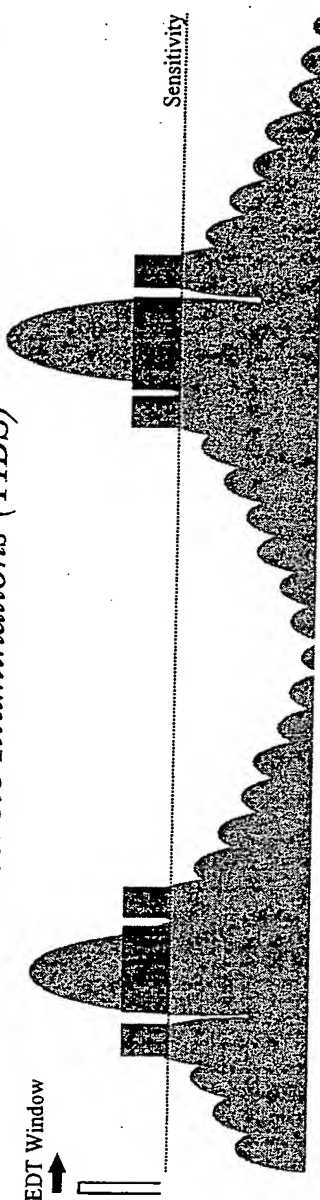
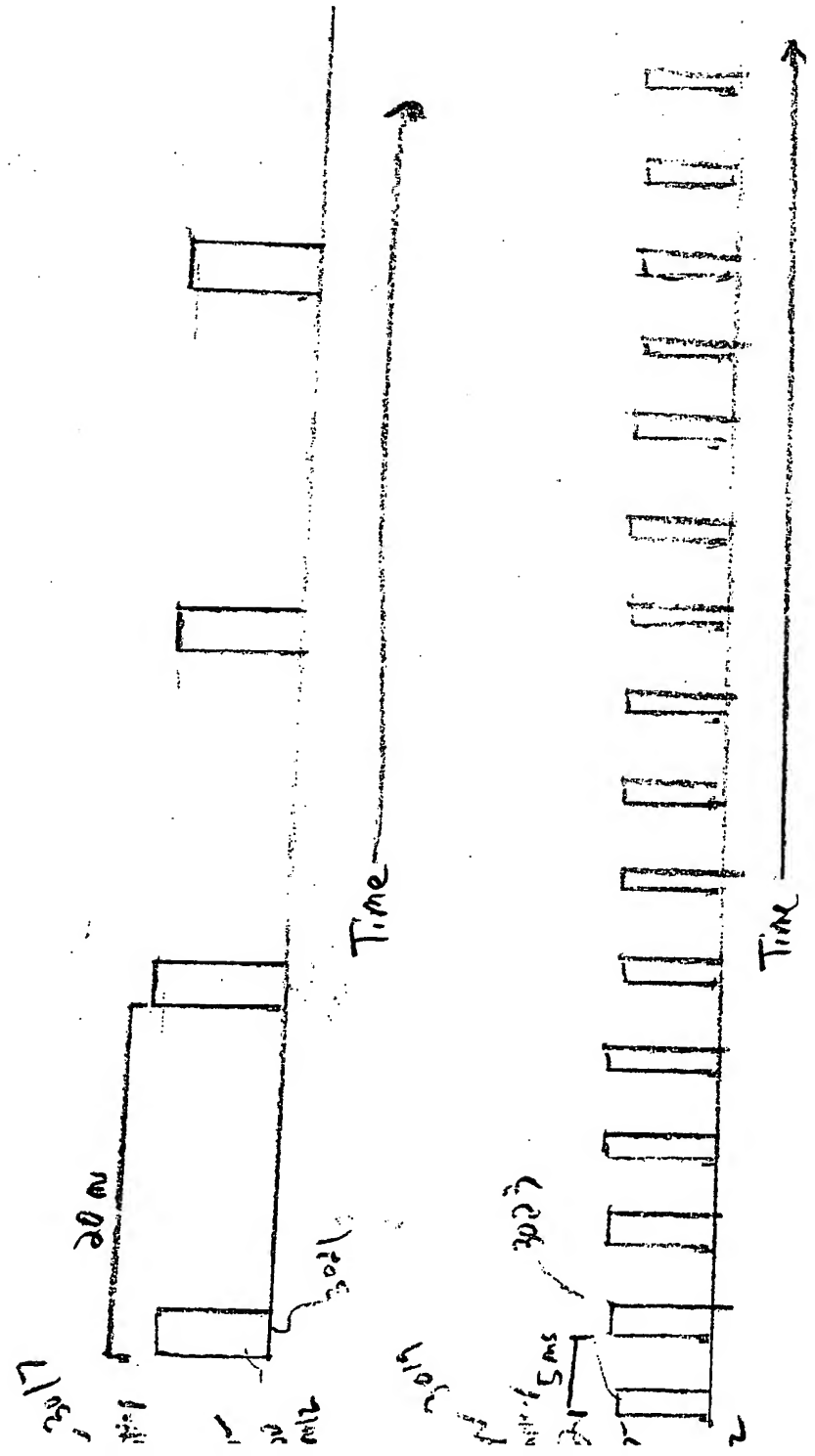
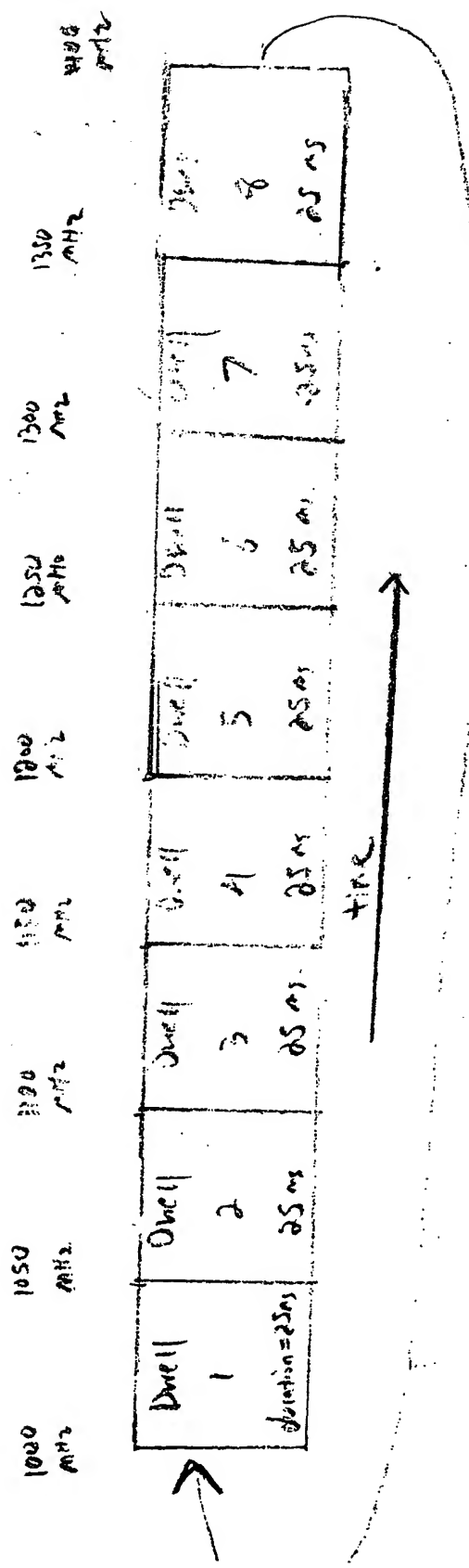
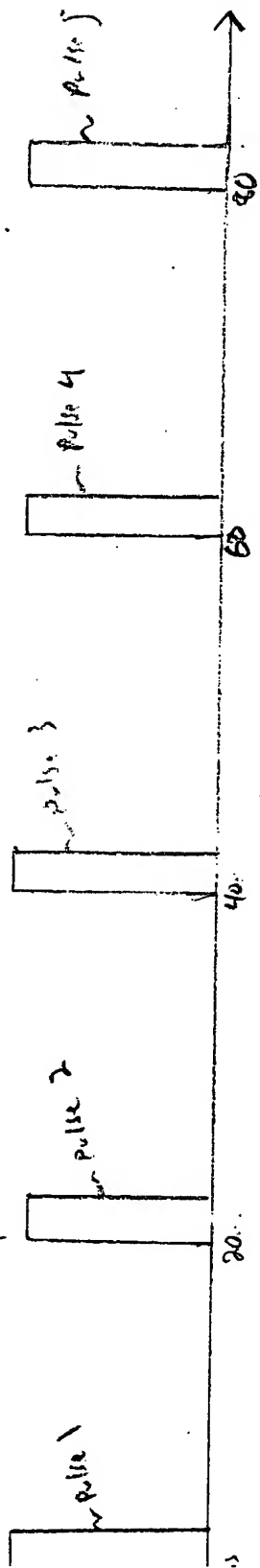


Figure 10B

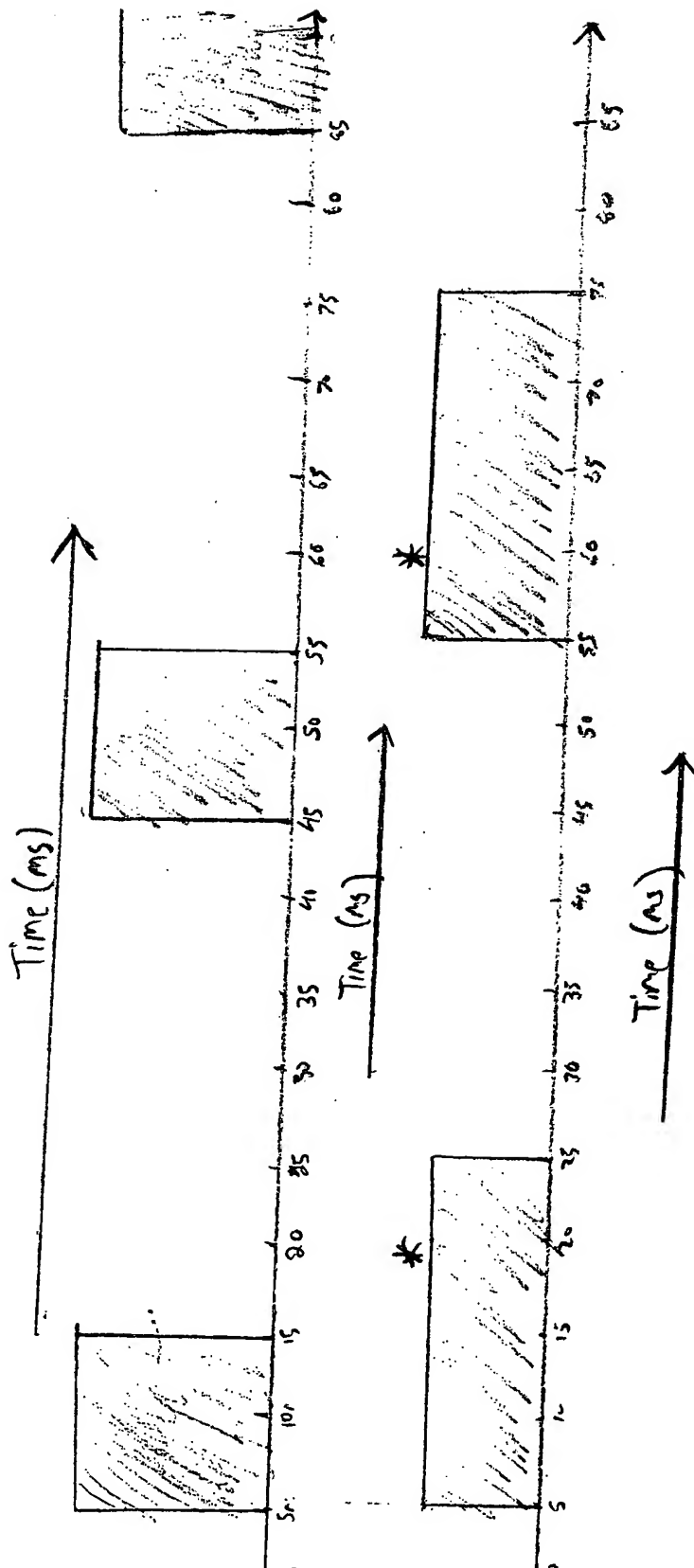
Figure 11



PRI = 20V



Emitter 3101



Solution 1
Drill Duration = 10 ms
Revol Time = 40 ms

Solution 2
Drill Duration = 20 ms
Revol Time = 50 ms

Figure 12

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4000

Emitter Name	Operating MHz 250 MHz IF 15 MHz VSW	RV T	Operating MHz 30 MHz ZF 15 MHz VSW	RF Min (MHz)	RF Max (MHz)	Min MDT (ms)
E1	100 ns	650 ns		1000	1300	3
E2	100 ns	780 ns		1220	1350	5
E3	110 ns	330 ns		1510	1910	2
E4	130 ns	390 ns		1730	1860	4

Figure B

1000 1250

Dwell 1
 $DD_{max} = 5$
 $RVT_{IN} = 100$

Solution 1

$Cost = \frac{5}{100} = .05$

	1000	1050	1100	1150	1200	1250	1270
Dwell 1	Dwell 2	Dwell 3	Dwell 4	Dwell 5	Dwell 6	Dwell 7	Dwell 8
DD _{max}	DD _{max}	DD _{max}	DD _{max}	DD _{max}	DD _{max}	DD _{max}	DD _{max}
3	3	3	3	3	3	3	5
RVT _{IN}	RVT _{IN}	RVT _{IN}	RVT _{IN}	RVT _{IN}	RVT _{IN}	RVT _{IN}	RVT _{IN}
650	650	650	650	650	650	650	650
Cost	Cost	Cost	Cost	Cost	Cost	Cost	Cost
$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{5}{650}$
$\frac{31}{650} \approx .048$							

Solution 2

Figure 14A

1510

1760

Dwell 1

DDmax = 4 ms

RVTime = 330 ms

$$\text{Cost} = \frac{4}{330} = .012$$

Solution 1

1510 1540 1570 1600 1630 1660 1690 1720 1750 1780

Dwell 1	Dwell 2	Dwell 3	Dwell 4	Dwell 5	Dwell 6	Dwell 7	Dwell 8	Dwell 9
DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 4
RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms

$$\text{Cost} = \frac{2}{330} + \frac{2}{330} + \frac{2}{330} + \frac{2}{330} + \frac{2}{330} + \frac{2}{330} + \frac{2}{330} + \frac{2}{330} + \frac{4}{330} = .08$$

Solution 2

Figure 14B

Figure 15

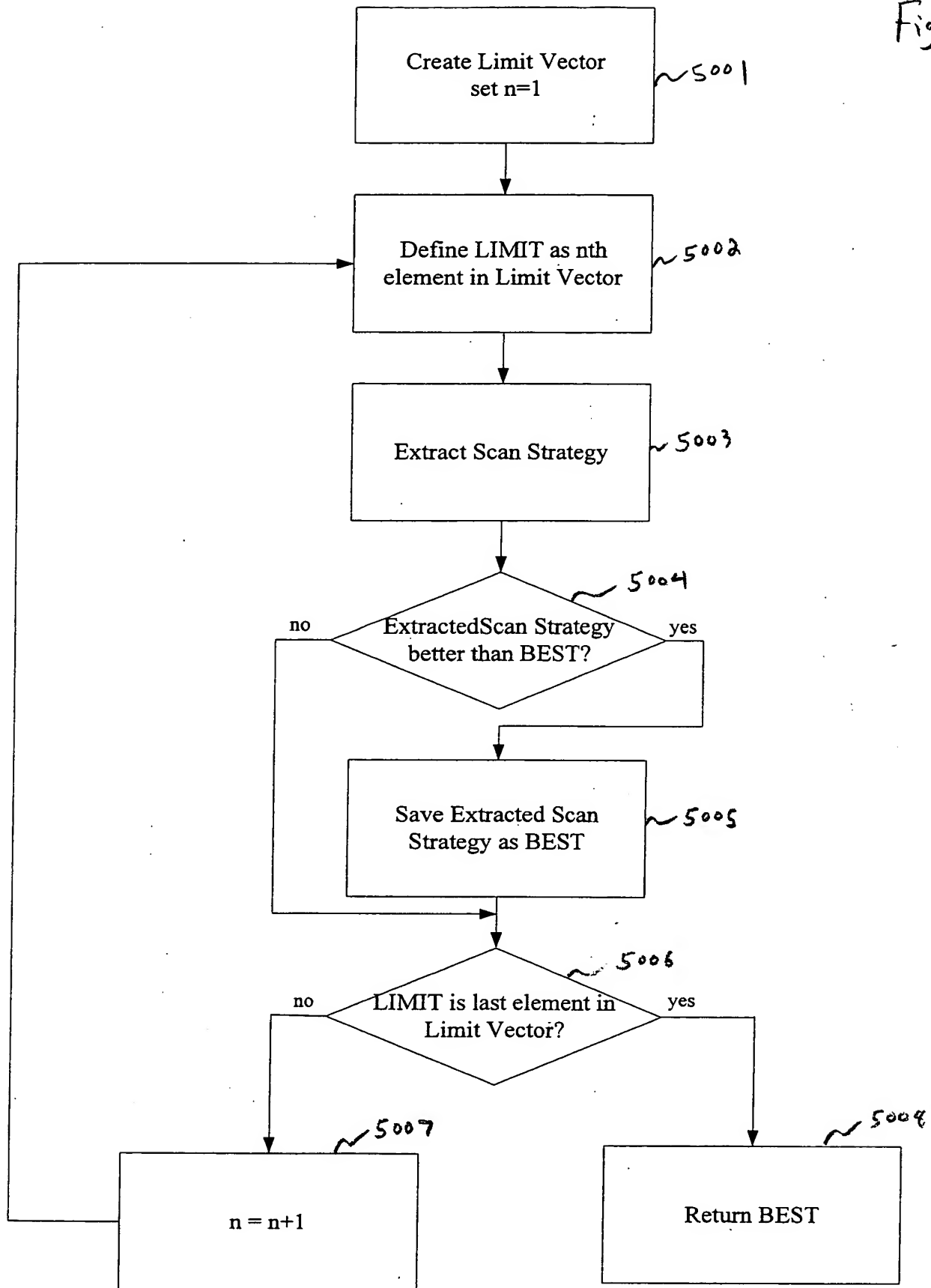
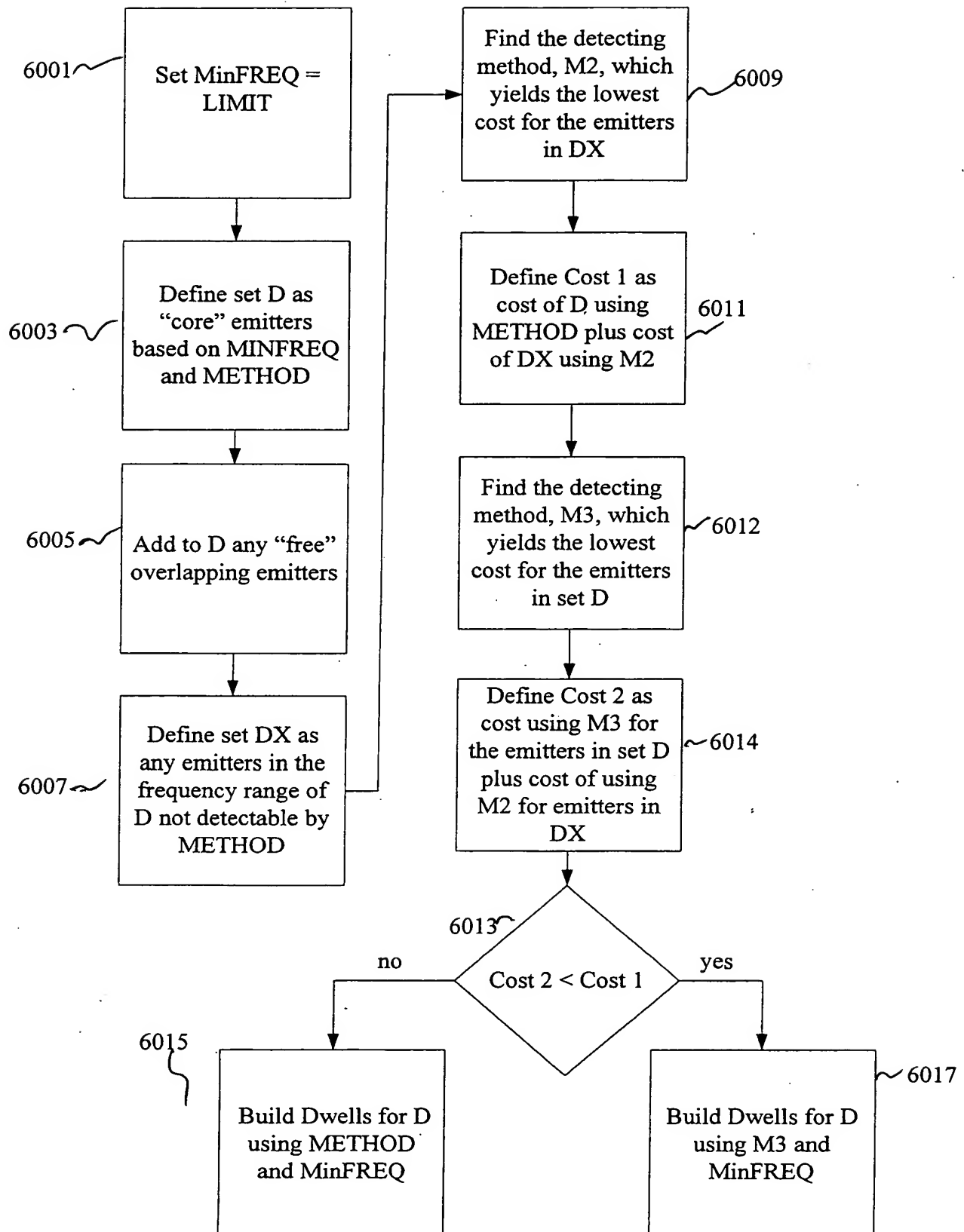


Figure 16



Name	RF Min	RF Max
E1	1100	1200
E2	1150	1250

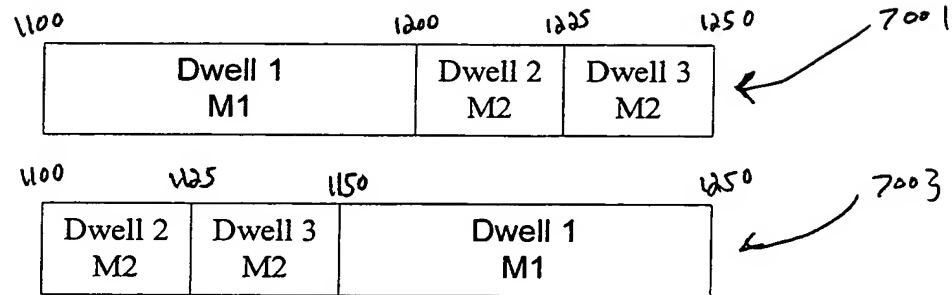
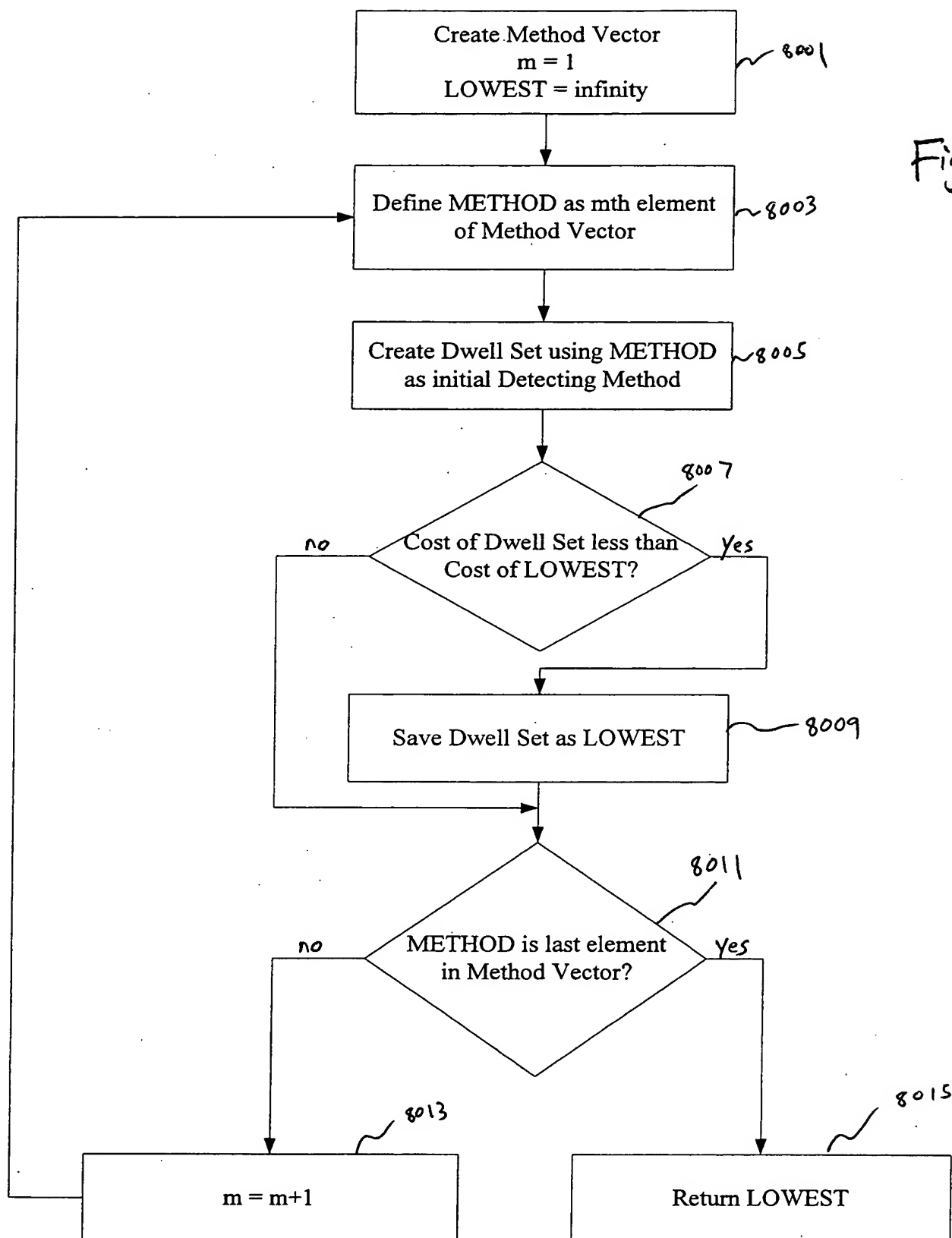


Figure 17

Figure 18



Emitter	Dwell Duration (ms)	Revisit Time (ms)
Emitter 1	1	500
Emitter 2	2	1200

Figure 19

Emitter	Dwell Duration (ms)	Revisit Time (ms)	Cost
Emitter 1	1	500	.002
Emitter 2	5	1000	.005

Figure 20

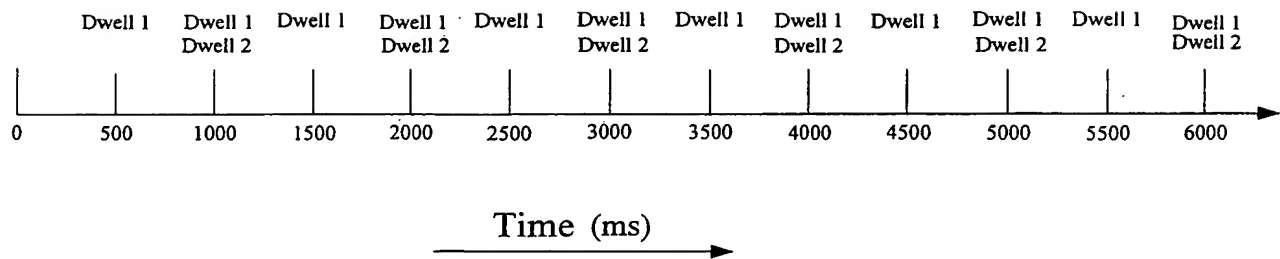


Figure 21

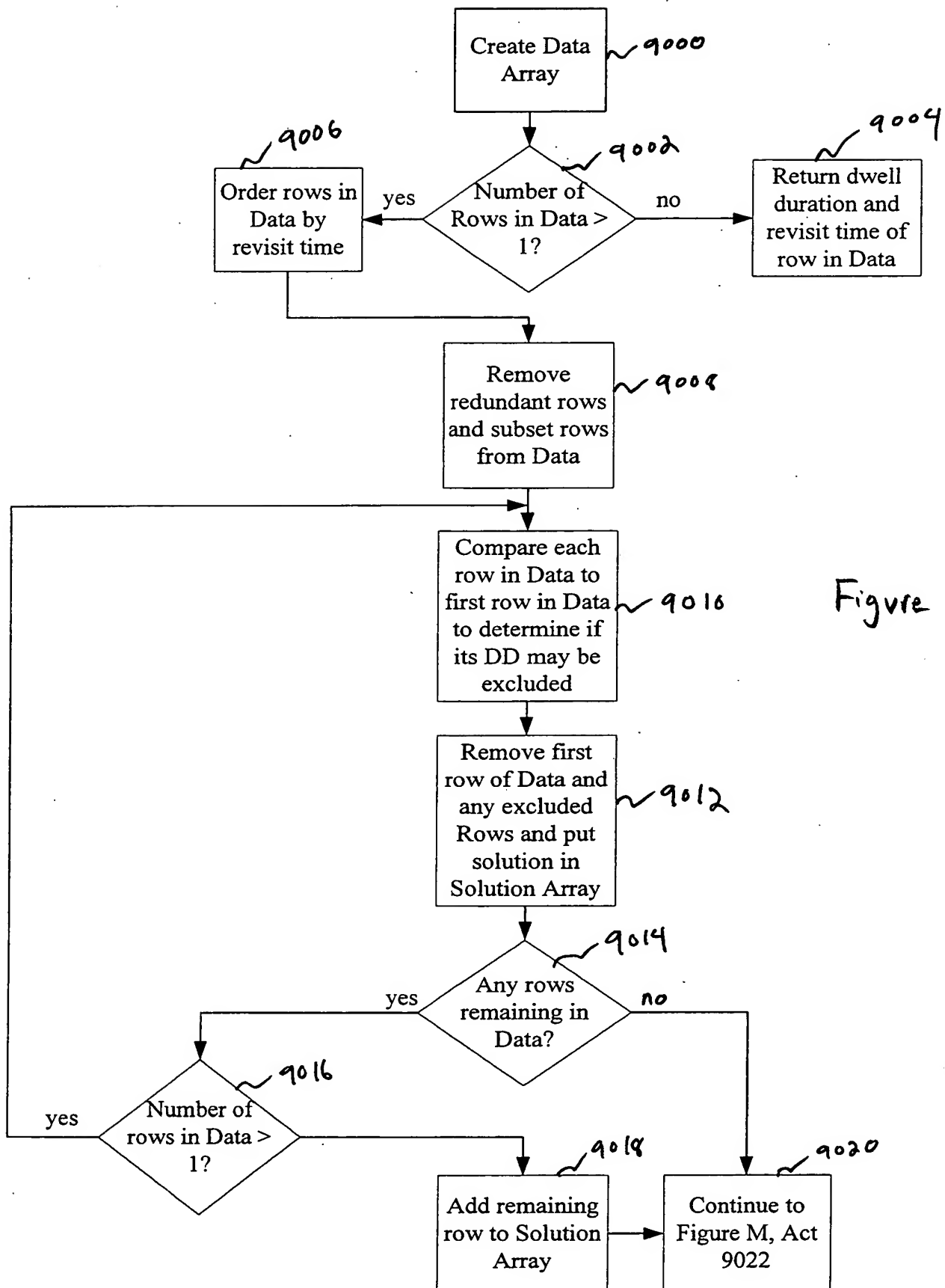


Figure 22

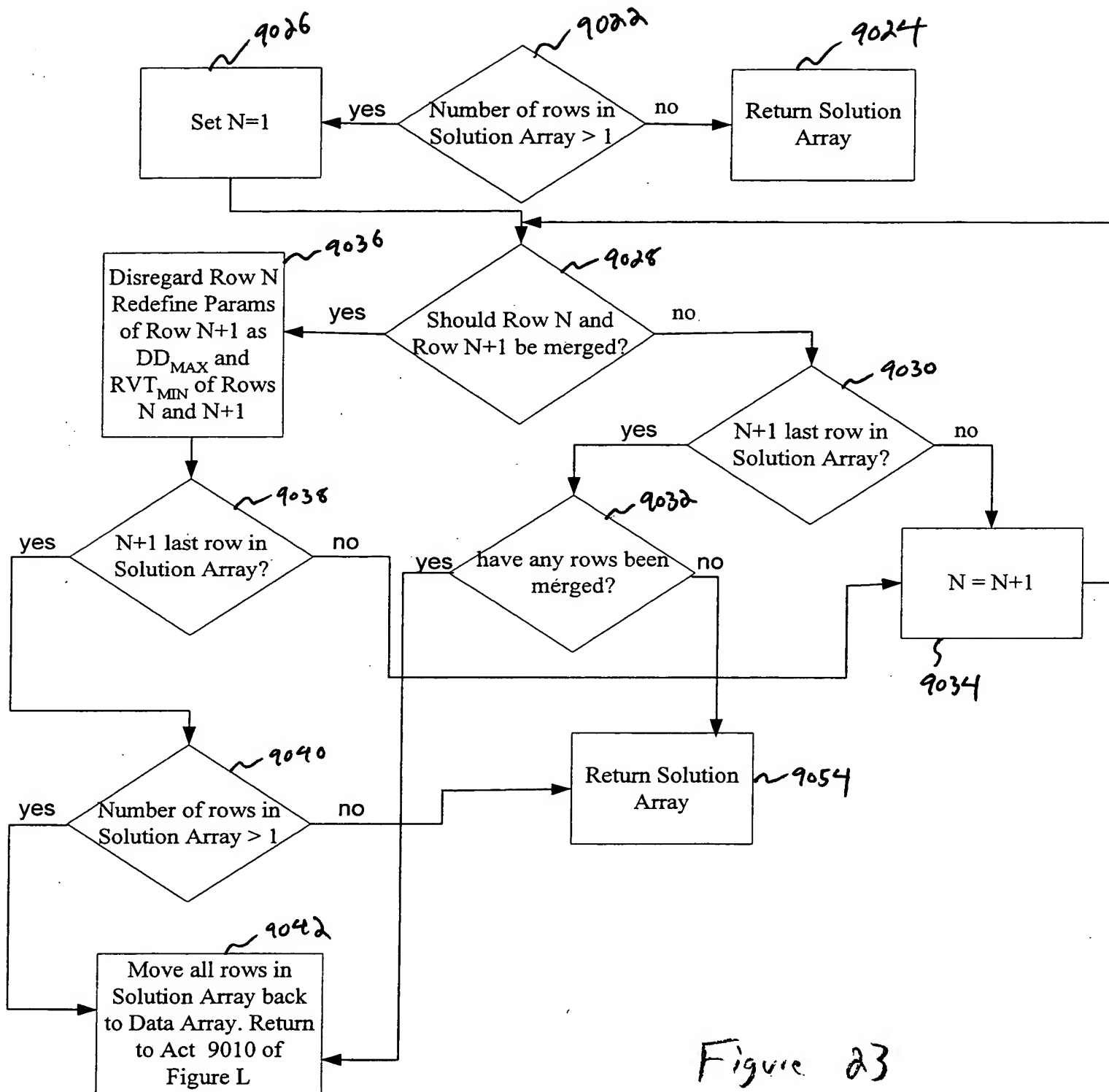


Figure 23

9044

Data		
MDT	EDT	RVT
3.05	17	2868
3	19	2000
3	19	2000
1	7	500
2	9	700
2.3	11	800
0.5	3.5	1000

Figure 24A

9044

Data		
MDT	EDT	RVT
1	7	500
2	9	700
2.3	11	800
0.5	3.5	1000
3	19	2000
3	19	2000
3.05	17	2868

9048
9049
9050

Figure 24B

Data		
MDT	EDT	RVT
1	7	500
2	9	700
2.3	11	800
3	19	2000
3.05	17	2868

9051
9052

Figure 24C

9044

Data		
MDT	EDT	RVT
2	9	700
2.3	11	800

9046

Solution		
MDT	EDT	RVT
1	19	500

Figure 24D

9044

Data		
MDT	EDT	RVT

9046

Solution		
MDT	EDT	RVT
1	19	500
2	11	700

Figure 24E

9046

Solution		
MDT	EDT	RVT
1	19	500
2	11	700

Figure 24F

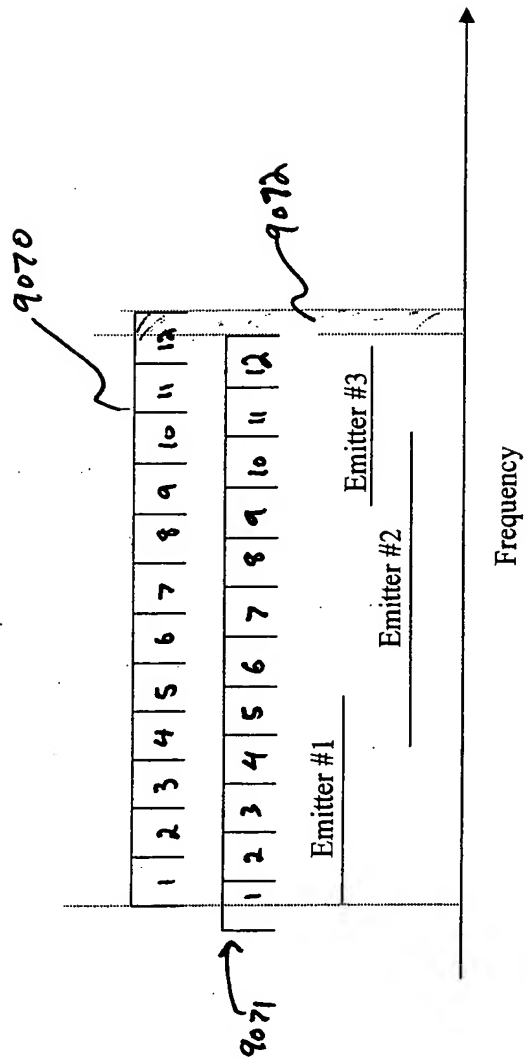


Figure 25

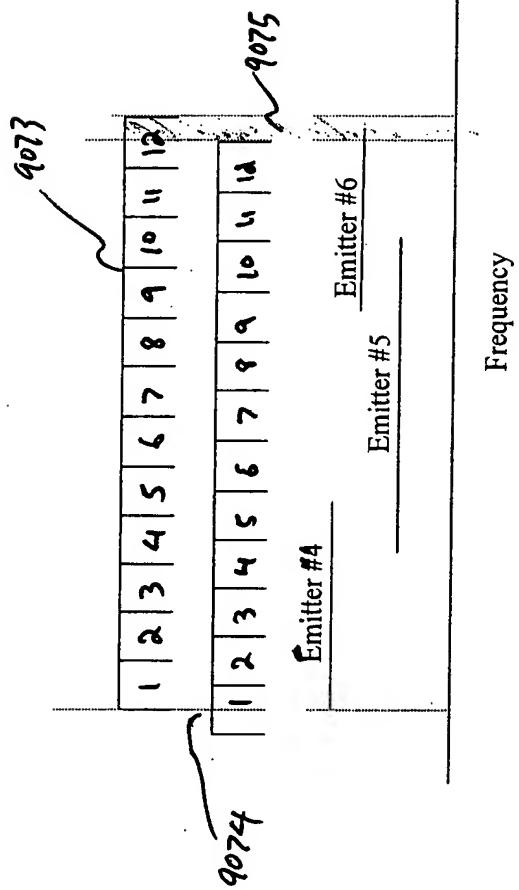


Figure 26

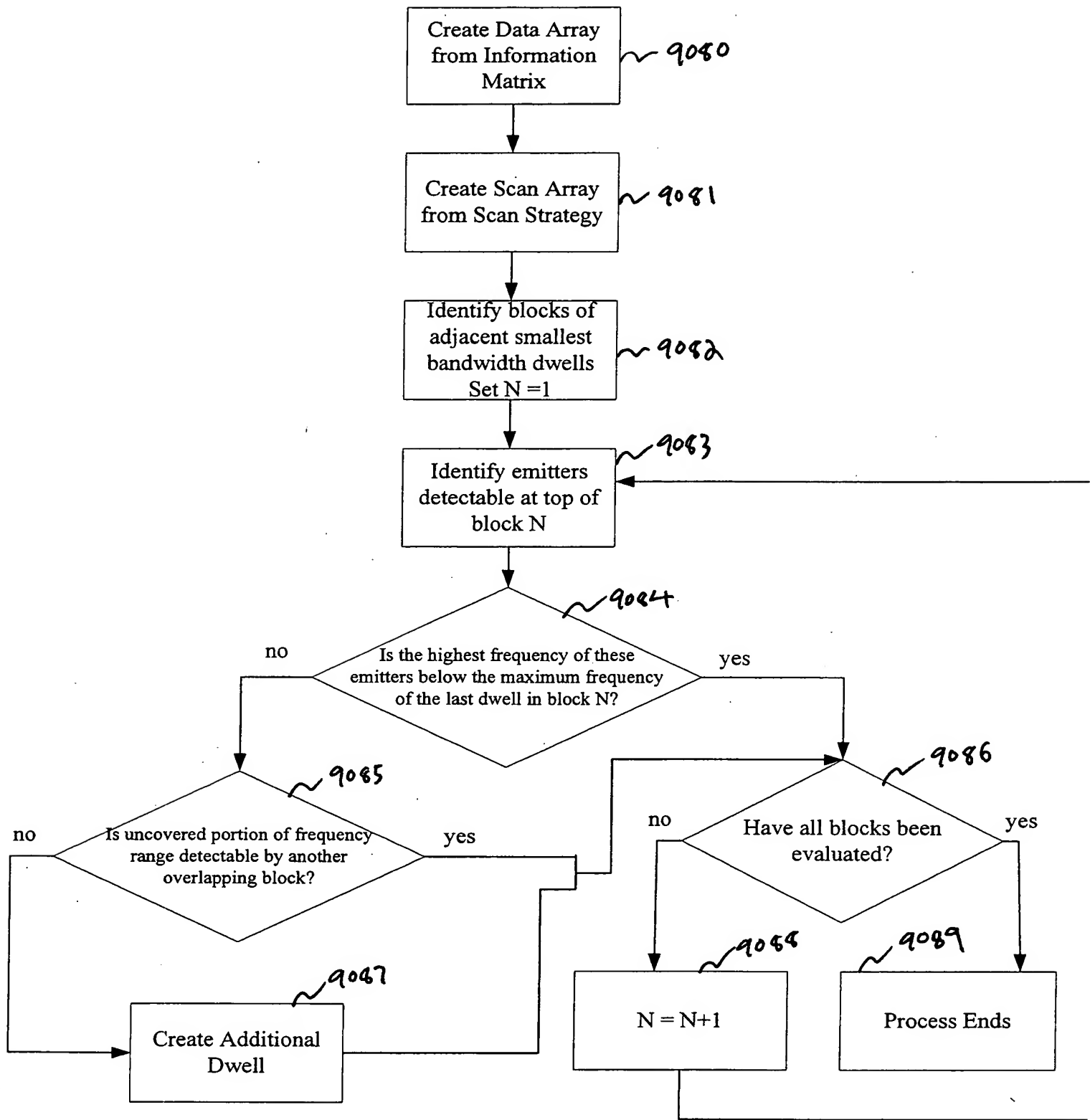


Figure 27

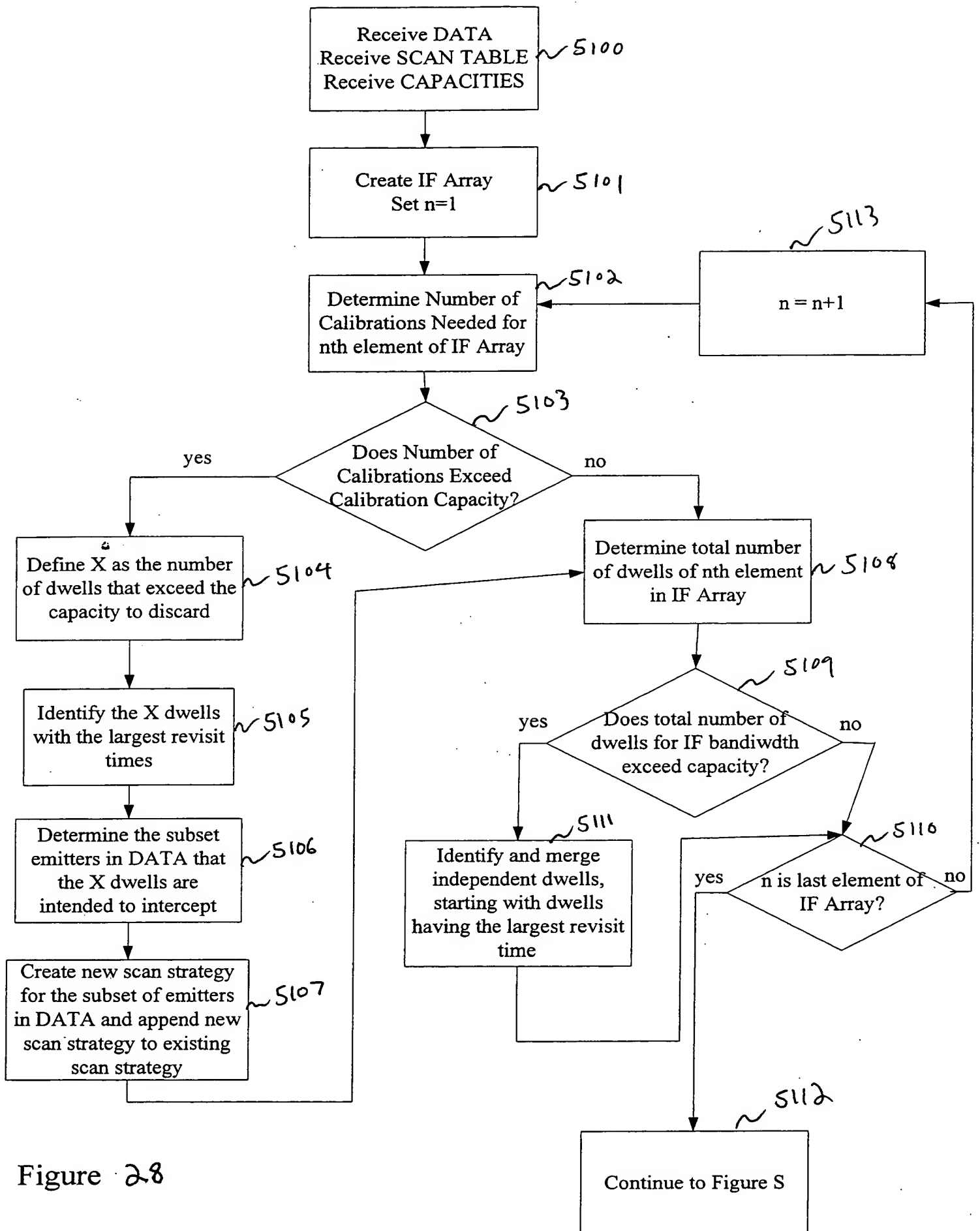


Figure 28

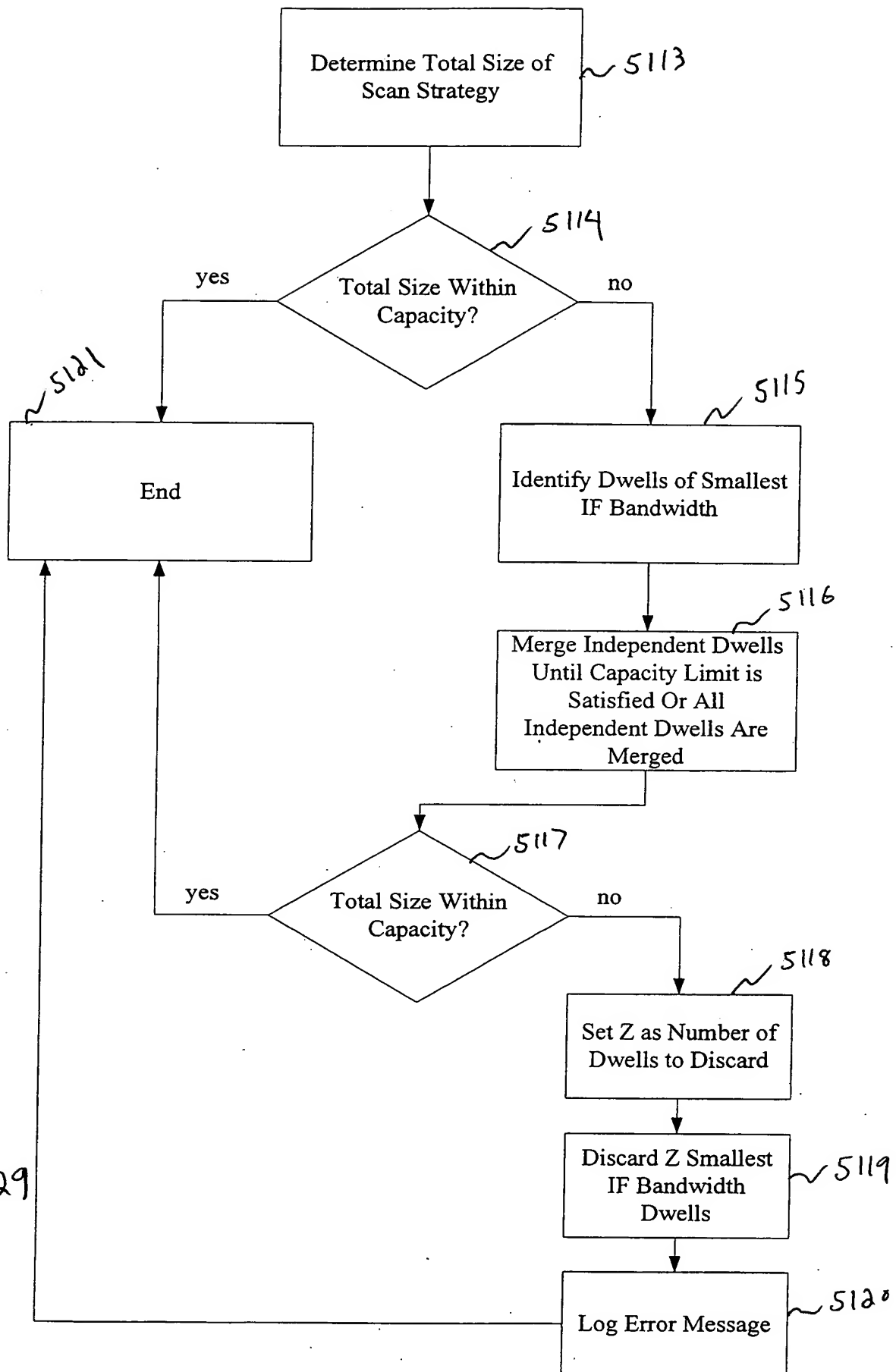


Figure 29

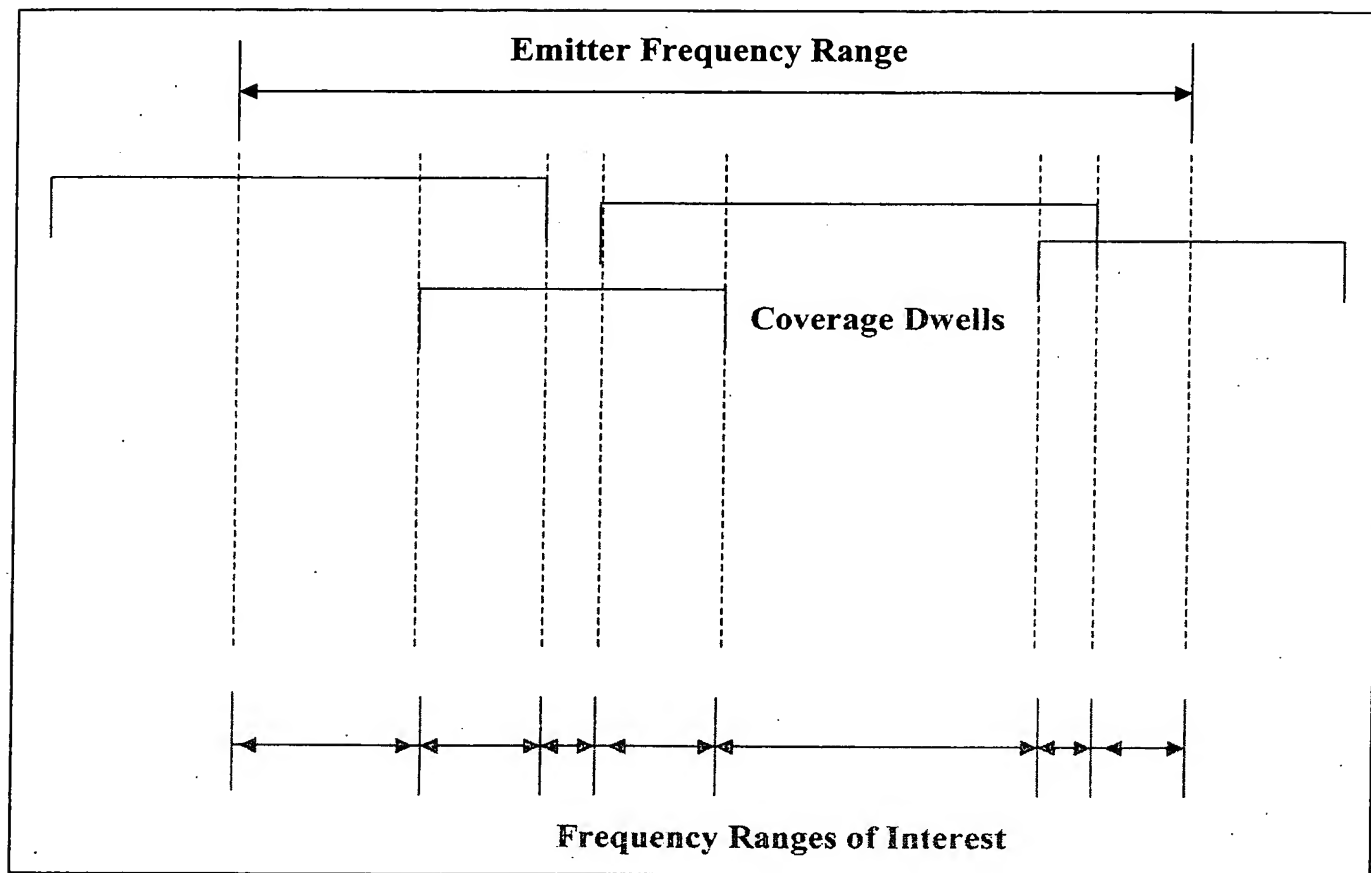


Figure 30

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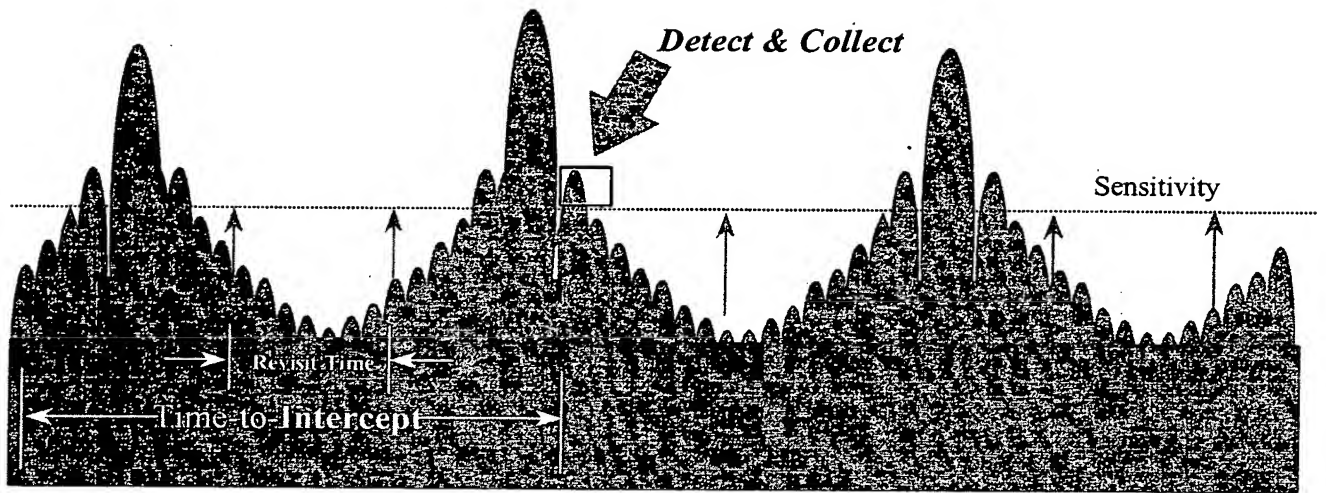


Figure 31

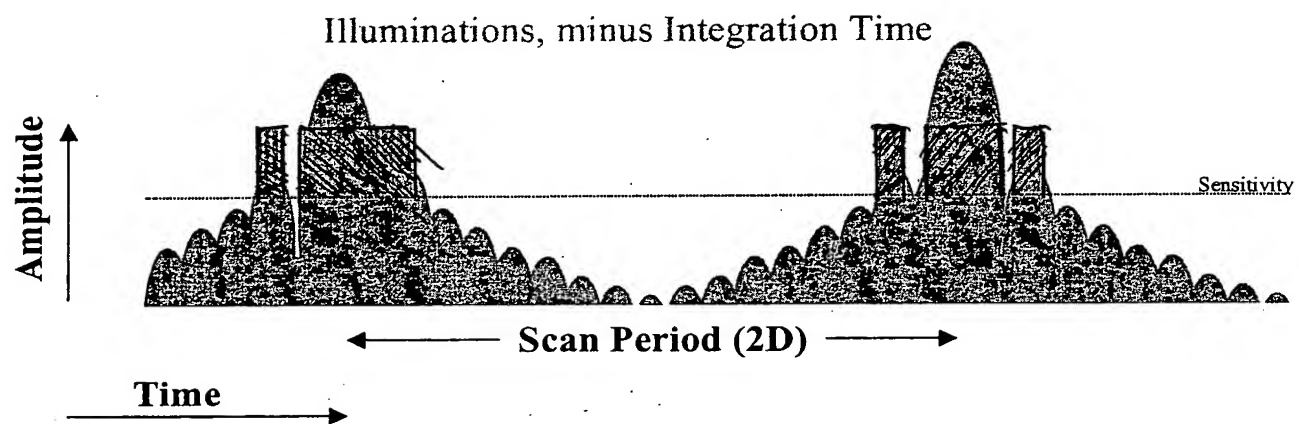


Figure 3a